

Appl. No. 09/614,489

Amdt. Dated November 05, 2003

Reply to Office Action of August 7, 2003

AMENDMENTS TO THE CLAIMS

- B1
A2
1. (Currently amended) A ~~system-method~~ for field replacement of networked devices, comprising ~~the steps of~~:
detecting a failed networked device;
~~replacing~~ indicating need for replacement of said failed networked device with a
functioning networked device;
locating a canonical location of said functioning networked device after said functioning
networked device is installed to replace said failed networked device, wherein a
port number of a managed switch operatively coupled to said functioning
networked device represents said canonical location; and
issuing an IP address to said functioning networked device, wherein said IP address is
identical to the IP address of said failed networked device.
 2. (Currently amended) A ~~system-method~~ according to claim 1, wherein ~~said step of~~
detecting said failed networked device is accomplished by at least one of a unicast ARP request
and a PING request.
 3. (Currently amended) A ~~system-method~~ according to claim 1, wherein ~~said step of~~
detecting said failed networked device is accomplished by at least one of periodic ARP requests
and PING requests.
 4. (Currently amended) A ~~system-method~~ according to claim 1, ~~further comprising a~~
~~step of wherein~~ indicating need for replacement of said failed networked device comprises
notifying maintenance personnel of said failed networked device.
 5. (Currently amended) A ~~system-method~~ according to claim 1, wherein ~~said step of~~
detecting a said failed networked device comprises processing a plurality of at least one of ARP
and PING requests over a time period before indicating said failed networked device.
 6. (Currently amended) A ~~system-method~~ according to claim 1, wherein ~~said step of~~
locating a said canonical location ~~of said functioning networked device comprises: the steps of~~

Appl. No. 09/614,489

Amdt. Dated November 05, 2003

Reply to Office Action of August 7, 2003

~~requesting determining~~ a MAC address for said functioning networked device; and
requesting a port number for said MAC address from ~~a said managed switch~~ switching
~~device, wherein said port number is said canonical location of said functioning~~
~~networked device.~~

7. (Currently amended) A ~~system method~~ according to claim 1, ~~wherein said step of~~
~~locating a canonical location of said functioning networked device comprises the steps of further~~
~~comprising:~~

identifying a plurality of target devices at said canonical location; ~~and~~
comparing said canonical location of said functioning networked device with a database
containing information of all said networked devices to isolate a single failed
networked device at said canonical location.

8. (Currently amended) A ~~system method~~ according to claim 1, wherein ~~said step of~~
~~issuing an said IP address to said functioning networked device~~ is suppressed if unable to isolate
to a single failed networked device.

Claims 9 - 12 (Cancelled)

13. (Currently amended) A method for ~~detecting determining~~ a canonical location for
a failed network device, comprising the steps of:

~~requesting issuing~~ a MAC address ~~request~~ for each of a ~~plurality of one or more~~
~~networked devices to confirm each device is alive;~~
~~detecting said a failed network device having a known address;~~
processing said known MAC address for said to determine a corresponding canonical
location of said failed network device, wherein a port number of a managed switch
operatively coupled to said failed network device represents said canonical
location; and
logging said known MAC address, and said canonical location, ~~and an IP address for said~~
~~failed network device.~~

Appl. No. 09/614,489
Amdt. Dated November 05, 2003
Reply to Office Action of August 7, 2003

14. (Currently amended) A method according to claim 13, wherein ~~said~~
~~requesting~~ issuing said request uses at least one of a unicast ARP message and PING request to a
select IP known IP address.

15. (Currently amended) A method according to claim 13, wherein ~~said step of~~
~~detecting said failed network device is based on no responsive non-response from to said~~
~~requesting request step.~~

16. (Currently amended) A method according to claim 13, further comprising ~~a step~~
~~of notifying maintenance personnel upon detecting of said failed network device.~~

17. (Currently amended) A method according to claim 13, wherein ~~said step of~~
~~requesting~~ issuing said MAC address request is periodically performed.

18. (Currently amended) A method according to claim 13, wherein ~~said step of~~
~~processing said known MAC address for to determine said canonical location comprises:~~
~~accessing a database containing a known MAC address listing, an IP address listing and a~~
~~port number listing for each of said plurality of one or more networked devices;~~
~~and~~
matching said known address to at least one of said MAC address and IP address listings,
thereby identifying a corresponding port number listing, wherein a port number
represents said canonical location of said failed network device.

19. (Currently amended) A method according to claim 13, wherein ~~said step of~~
~~processing said MAC address for said canonical location comprises accessing a database~~
~~containing a MAC address listing, an IP address listing and a port listing for each of said plurality~~
~~of networked devices, and wherein a said port number listing represents said canonical location~~
~~of a plurality of target devices, and said IP address of said failed network device is determined by~~
~~locating a single failed target device at said canonical location.~~

20. (Original) An apparatus for the automatic configuration of networked devices,
comprising:

Appl. N . 09/614,489

Amdt. Dated November 05, 2003

Reply to Office Action of August 7, 2003

a network interface interconnecting said networked devices;
a means of detecting said networked devices;
a means of determining a canonical location of said networked devices; and
a monitor agent connected to said network interface, wherein said monitor agent issues an IP address to each of said networked devices and records a MAC address for each of said networked devices and wherein said monitor agent maintains a list of each said IP address and each said MAC address.

21. (Original) An apparatus according to claim 20, further comprising a means of processing a new IP address for a new networked device, wherein said new IP address does not conflict with said list of each said IP address maintained by said monitor agent.

22. (Original) An apparatus according to claim 20, wherein said means of detecting said networked devices is accomplished by a periodic unicast ARP request.

23. (Original) An apparatus according to claim 20, wherein said means of determining a canonical location of said networked devices comprises a means of processing a port number for said MAC address from a managed switching device.

24. (Original) An apparatus according to claim 20, wherein said means of determining a canonical location of said networked devices comprises a means of processing a plurality of target devices at said canonical location.

25. (New) A system for the automatic configuration of networked devices, comprising:

a managed switching device having multiple ports, and capable of reporting MAC addresses and port assignments associated with network devices connected to its ports;

a monitor agent communicatively coupled with the managed switching device, and adapted to selectively issue an IP address to each of the network devices, and to maintain a list including an IP address for each of the network devices;

Appl. No. 09/614,489

Amdt. Dated November 05, 2003

Reply to Office Action of August 7, 2003

wherein the monitor agent is further adapted to request a port number associated with a particular network device using a MAC address of that device, and the managed switching device is adapted to respond to the monitor agent by providing the requested port number, thereby enabling the monitor agent to determine a canonical location of the particular network device.

26. (New) The system of claim 25 wherein monitor agent is further configured to periodically poll the network devices to confirm each device is alive, thereby enabling the monitor agent to detect device failure.

27. (New) The system of claim 25 wherein monitor agent is further configured to log at least one of MAC addresses, canonical locations, and IP addresses associated with failed network devices.

28. (New) The system of claim 25 wherein the monitor agent is further adapted to automatically reassign an IP address of a failed and replaced network device to a replacement network device.